

32-oz Bottle (1)/Corrugated Box Combination Package

QC Check List

Press to see Check List only.

Description	Package ID Number
Combination Package; Corrugated RSC box for (1) each 32 oz. brown glass bottles in inner metal can with corrugated board protective support + PE bag without glass bottles UN 4GV/X 4/S , DOT E-9168	115-4375

Mfg. Details Per: Packaging Specifications

No. 4GO-653-00

Issue Date: February 1, 2000

Revised Date:

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Company
Name
Here

Packaging Specifications

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1.0 GENERAL DESCRIPTION

Combination Package; consisting of a Regular Slotted Carton (RSC), natural kraft corrugated fiberboard, double-wall construction, 275-lb test board, and with a single 32-ounce glass bottle in a metal can supported by corrugated die-cut protective cushioning. [DOT Exemption Package]

1.1 United Nations Designation - 4G /X 4/ S * [per 49 CFR, ¶178.503]

- 4GV = Fiberboard box
- X = Suitable for Packing Group I, II, and III materials
- 4 = Maximum allowable gross weight in kilograms for which the box was tested (4 kgs [8.8 lbs])
- S = Designation indicates packaging is for a combination package *[or single packaging for solid materials]*.
- * = The last two (2) digits of the calendar year in which the container was manufactured.

1.2 Size:

Interior dimensions (LxWxH) -- 11-3/16 in. x 11-3/16 in. x 14-3/4 in.

Exterior dimensions (LxWxH) -- 11-1/4 in. x 11-1/4 in. x 15-7/8 in.

1.3 Tare Weight:

Five (5) lb (complete combination packaging without product)

2.0 MATERIAL DETAILS

Box construction must comply with Title 49, Code of Federal Regulations (49 CFR), ¶178.516 (latest edition) for fiberboard boxes, and the following minimum requirements. Manufacturer shall document appropriate quality control on incoming raw material. No significant changes to the manufacturing process or raw material is allowed without prior approval of the Company.

2.1 Double-Wall Box:

Corrugated construction, RSC style, 275-lb test board.

2.2 Overall Construction:

42/26/26/26/42 lb per thousand square feet (MSF) basis weight.

2.3 Linerboard:

3-facings, 42/26/42 lb/MSF basis weight (110 lb minimum).

2.4 Corrugating Medium:

2-interleaved, 26/26 lb/MSF basis weight, B/C Flute.

2.5 Manufacturer's Joint:

Glued overlap tab joint.

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2.6 Water Resistance:

The outer surface must have a water absorption rate not greater than 155 g/m² when tested over a 30-minute period by the Cobb Method per UN requirements per 49 CFR, §178.516(b)(1)].

2.7 Closure:

Clear plastic tape, 3 in. x 18 in., furnished with combination packaging.

2.8 Interior:

Natural kraft.

2.9 Exterior:

Natural kraft.

2.10 Printing:

Black, Four Panels:

Side Panels --

- Up Arrows block (at top, left corner) on two (2) opposing panels
- UN 4G/X 4/S* markings (at center)
- Accepted for Air Shipment
- Proper Shipping Name and UN ID block (at top)
- DOT E-9168 block (center)
- No Label Required
- IATA Use Instructions (bottom)

Top Panels --

- This Side Up
- Packing list, test closure and instructions information

Bottom Panel --

- Manufacturer's Box Certificate

2.11 Cleanliness:

Finished boxes shall be free of ragged edges, dirt, oil stains, or printing smears, and box must be dry.

2.12 Freight Classification:

In addition to the requirements contained in 49 CFR, double-wall boxes must conform to the applicable requirements of Rule 41, of the Uniform Freight Classification (UFC), and Rule 222 of the National Motor Freight Classification (NMFC), and so marked on box.

3.0 INNER PACKAGING [CONTAINER AND CUSHIONING] CRITERIA

3.1 Bottle and Closure:

Bottle - brown glass, narrow mouth, plastic coated, 32-oz, 33-400 neck finish.

Closure - green phenolic-threaded cap, with teflon inner liner and cushioning.

Closure Sealing Tape - 1 in. x 10 in., clear plastic, furnished with packaging.

3.2 Inner Can Support:

Corrugated board, double-wall, support insert, with die-cut corners, 5 in. x 2 in., 275-lb test board, B/C flute, Size: 7 in. x 7 in. x 14-5/8 in. with 1-7/8 in. top and bottom flaps.

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3.3 Bag and Bag Closure:

Bag - Polyethylene bag; 30 in. x 13 in. (L x W), 4 mil, heat-sealed bottom.

Bag Closure - Polyethylene bag to be tied within itself.

3.4 Metal Can and Can Closure:

Can - Full friction can, welded side seam, .025 ETP, double-seamed compound-lined, with metal top, silver metal color, Size - 608 x 1014.

Can Closure Seal - 1 in. x 10 in., clear plastic tape, three (3) each, furnished with packaging.

3.5 Can Cushioning:

Top and bottom vermiculite pillows, one (1) each, 6-3/4 in. x 6-1/2 in. vermiculite bottle wrap, 19-1/2 in. x 11 in.

4.0 CONTAINER PERFORMANCE CRITERIA

The manufacturer shall successfully test and certify that containers meet or exceed the requirements of 49 CFR, §178.600 - 178.608, for Packing Group I.

4.1 Packaging Compliance:

The packaging must comply with the terms of **DOT Exemption No. 9168**, as marked on the outer package. A copy of the current (renewed) exemption must be furnished with the packaging.

4.2 Performance Test Documentation:

Upon request, the manufacturer must be capable of providing the Company copies of the performance test documentation for purchased packagings as required by 49 CFR for the UN certification marked packaging. Periodic audit copies will be requested randomly on UN packagings. Ref. §10.0

4.3 IATA Requirements:

In addition to meeting the requirements of 49 CFR, this UN Combination Packaging must also meet the requirements of current IATA regulations for carriage by air.

5.0 QUALITY ASSURANCE

The Seller shall assure, and be responsible, that the quality of the packaging furnished under this document is of good quality as pursuant to industry standard manufacturing practices for all components of this combination package, including the materials/components used in the manufacturing of the stated boxes and the individual components constituting the complete combination package, as sold.

The Seller shall meet the requirements stipulated in this packaging specification.

5.1 Manufacturer's Certification:

By the act of placing the UN performance criteria markings on each box of the combination package purchased by the Company, the seller acknowledges he has certified and accepted responsibility that the stated box design and combination package meets or exceeds the U.S. Department of Transportation's UN performance requirements as required by 49 CFR, §178.600 - 178.608.

In addition, this certification marking acknowledges to the Company that the box manufacturer has complied with the specific standards for fiberboard boxes specifically listed in 49 CFR, §178.516, including the Cobb Water Absorption Test specifically referenced under 49 CFR, §178.516(b)(1).

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5.2 Receiver Inspections:

The following inspections will be performed on incoming combination packages by a Company designee to determine the combination packages meet quality standards and the requirements of this document. However, the Company is not limited to the following inspections to determine quality and specification conformance. Conformance will be indicated by a Y or N in the "Y/N" column, and negative responses documented and processed through the Company's Quality Assurance Program.

Note: Checklist for this specification is on following page.

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This checklist is to be reproduced for QC Inspections.

Receiver Inspection Quality Control (QC) Checklist for Incoming Corrugated Box Combination Packagings			
QC Conformance		Y/N	<<No's to be documented in accordance with the Company's QA Program
1	Package Condition (¶5.0)		Packaging is in unimpaired physical condition, except for superficial marks, including all inner packagings.
2	Inner Bottle (¶3.1 & 5.0)		Bottle shows no cracks or integrity defects and cap fits securely and contains inner seal.
3	Box Construction (¶5.0)		Scoring uniform and sufficient depth to allow clean fold and without distortion or breaks.
			Corrugating medium not crushed within assembled box.
			When folded along score lines, flaps meet and are square - no space between flaps greater than 1/16 in.
4	Manufacturer's Joint (¶2.5)		Glue tab joints securely glued, in alignment with box sidewalls, and no loose edges. No breaking of linerboard at tab joint fold.
5	Box Alignment (¶5.0)		Assembled box and top are square at corners/edges.
6	Markings (¶6.0)		Boxes marked (as a minimum) with ORNL specified UN markings, per Catalog Description.
			Markings include the manufacturer's identification -- company name or registered symbol (initials or M-number), or test agency code; after USA/. Ref: 49 CFR, ¶178.503(a)(8).
7	Box Printing (¶2.10)		Printing on the box is of the specified size, is sharp, and has no smears. Information is according to specifications set forth in ¶2.10 of this document.
			Required packing/closure instructions are printed on the top box flap.
8	Packaging Components (¶3.0 & 4.1)		All required combination packaging components, as specified in this document, are furnished with the specified corrugated box: W 4-mil polyethylene bag W Inner corrugated board support partition - 1 piece W Metal can and lid W 32-oz Brown glass bottle, 1 ea. W Vermiculite pads, 2 ea., and bottle wrap, 1 ea. W Closure tape for box, bottle cap, and can lid W Copy of "current" DOE Exemption No. 9168

Package ID Number _____

P.O. Number _____

Total Units Received _____

Inspection Method: Per Company's QA Program

Sample Size _____ [Based on ANSI/ASQC Z1.4-1993]

Non-Conformance Document No. _____

Inspector/Date _____

Additional comments provided on back: _____ check if yes

The above QC checklist shall be accomplished for each order based on random samples of incoming packaging by QC personnel to determine manufacturer's conformance to these specified Packaging Specifications.

Shipments of packaging not meeting specified requirements will be returned to the seller for credit.

QC inspections resulting in non-compliance with these Packaging Specifications will be cause for rejection of the entire shipment.

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6.0 MARKING

As a minimum, each double-wall box of the combination package shall be marked in accordance with 49 CFR, ¶178.2 and 178.503, on the exterior surface of the box. Markings shall have a minimum letter height of 1/2-inch.

The markings shall be printed on the box panels as stated in ¶2.10 of this document.

The manufacturer's compliance markings shall be printed on the box as stated in ¶2.12.

7.0 INTENDED USE

The Combination Packages are intended for Packing Groups I, II, and III hazardous materials in liquid form. Maximum capacity of the container shall not exceed the tested gross weight, as marked on the box sidewall, that of 4 kilograms (8.8 lbs).

8.0 SUGGESTED MANUFACTURERS

The following manufacturer has produced this combination package, and has demonstrated the ability to satisfactorily meet the requirements set forth in this specification. However, this does not guarantee current or continued availability as the suggested source. Neither does this intend to suggest this supplier should be the sole source for this combination package.

- All-Pak, Inc., Pittsburgh, Pennsylvania [Mfg's Catalog ID: No. 6640 (*without bottles*)]

The Seller must advise the Company prior to any change in the current source (manufacturer) of packaging materials described in these Packaging Specifications.

Any Manufacturer that satisfactorily demonstrates to the Company the capability to furnish packaging in compliance with these Packaging Specifications, may be added to the above listing.

9.0 AUTHORIZED CHANGES

Changes/revisions in the requirements specified in this document will only be authorized by the Company.

10.0 DISTRIBUTION OF UN PERFORMANCE TEST REPORTS (per ¶3.1)

Upon specific request, UN performance test documentation for specified order/shipment will be submitted directly to the Company at the address below:

COMPANY NAME AND ADDRESS (enter information below)